

ABSTRACT

An electrolysis process for the recovery of metal from an aqueous solution is defined. On electrolysing the solution metal is caused to deposit on a deposition surface of a cathode. The process includes the step of inducing a non-uniform current density across the deposition surface so as to form areas of high current density interspaced by areas of low current density. The difference between the areas of high current density and low current density is sufficient to cause metal deposition to be concentrated on the areas of high current density so as to promote non-uniform deposition of metal across the deposition surface. An electrolysis cell for the electro-recovery of metal from an aqueous solution is also defined. The cell includes a cathode which includes a deposition surface on which metal is deposited on electrolysing of the aqueous solution. In operation of the cell, the deposition surface has a non-uniform electrical field having areas of strong electrical field interspaced by areas of weak electrical field. The difference between the areas of strong electrical field and weak electrical field is sufficient to cause metal deposition to be concentrated on the areas of high electrical field so as to promote non-uniform deposition of metal on the surface.